The Curing and Storage Facility

A properly built storage facility maintains the temperature and humidity required for curing and long-term storage of sweetpotatoes. "Common storage" in areas without temperature control or assuming that the ambient cool winter temperatures are adequate will not maintain sweetpotato quality. The most effective type of storage facility uses negative horizontal ventilation (NHV).

The NHV system uses a slight negative pressure to pull the ventilation air horizontally past the pallet bins. Fans mounted internally along the top of a plenum wall on one end of the room create the negative pressure. Air first enters the mass of sweetpotatoes at the end of the room opposite the plenum wall, through ducts formed by the forklift slots at the bottom of the pallet bins. The air then moves horizontally through the mass of sweetpotatoes toward openings in the plenum wall. Once in the plenum, the air rises and passes through the fans and back out into the room, where it moves horizontally in the opposite direction back over the top of the stacked bins (Figures 12 and 13).

Figure 13. Loading pallet bins of sweetpotatoes into a new negative horizontal ventilation (NHV) facility. (PHOTO BY CCU INC.)

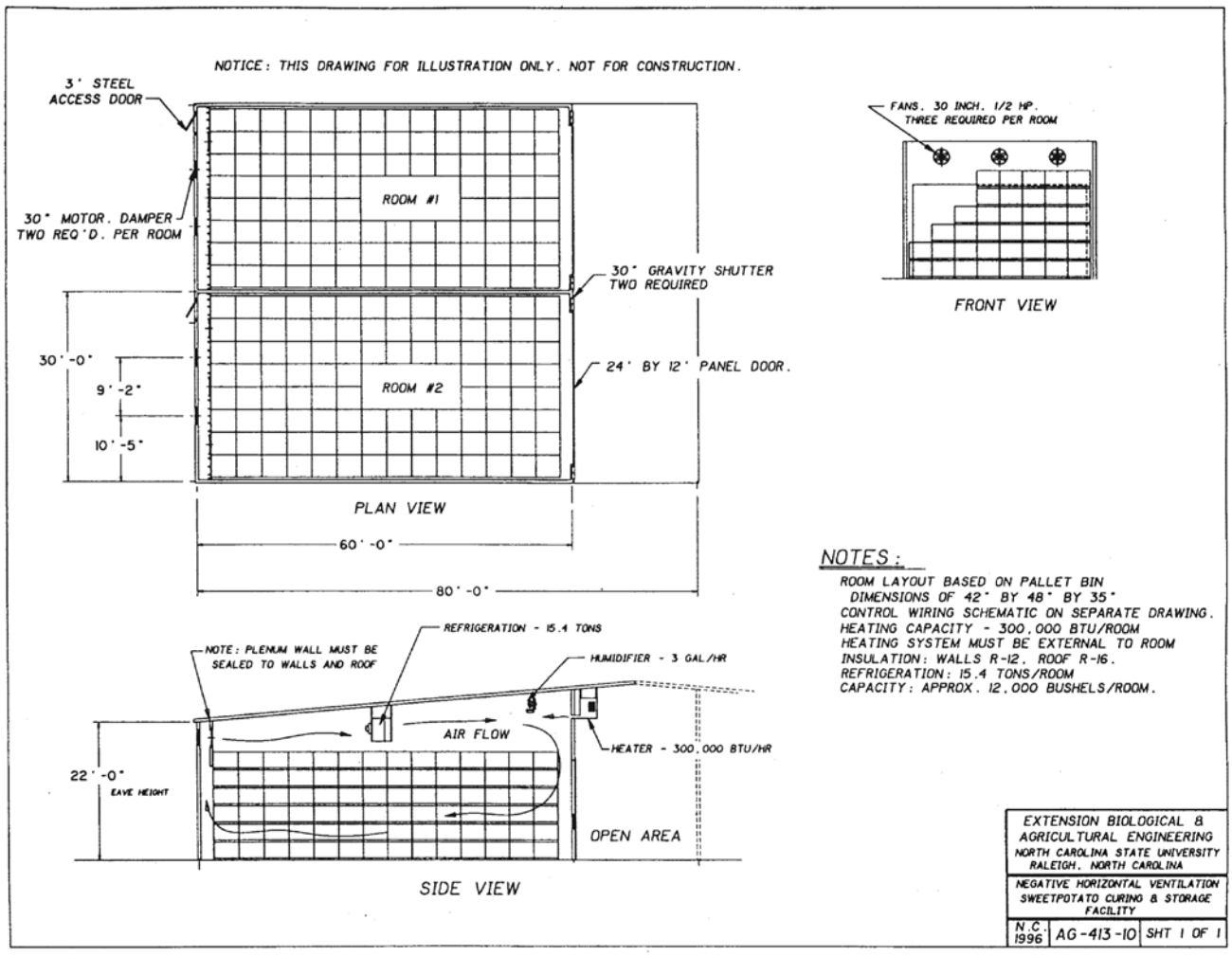

Figure 12. Construction diagram for negative horizontal ventilation storage facility. (ILLUSTRATION BY M. BOYETTE)